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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,393	02/25/2002	Carlos Alfonso Cruz	A01197	4006

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EXAMINER

EGWIM, KELECHI CHIDI

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/082,393

Applicant(s)

CRUZ ET AL.

Examiner

Dr. Kelechi C. Egwim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 2-6, 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 2, from which claims 3-6 and 10 depend, is generally indefinite and replete with apparent idiomatic errors.

Firstly, independent claim 1 is to a process, however, claim 2 does not appear to modify the process. It appears to modify the final product for which the product of the process of claim 1 is an intermediate, but it is unclear what new active steps are set forth by the claim.

Also, for instance, the claim recites the polymer particles as comprising at least one hard phase. However, claim 3 recites that the hard phase is prepared "in the present of the polymer particles". This is inconsistent and such inconsistencies are also carried over to the remaining claims depending from claim 2 (i.e., "adjacent to" vs. comprises—see line 3 of claim 4).

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4. The term "hydrophobic monomer carrier" in claim 9 is not an art-recognized term. When applicant acts as his or her own lexicographer, applicant must specifically define the term or illustrate it so as to put one reasonably skilled in the art on notice as to what applicant intends to define by that term. The term is indefinite because the specification does not clearly define the term and it is not a common art-recognized term.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa et al. (WO 97/07174). US 6,190,767 is the English language translation of WO 97/07174, and the rejection will refer to sections in US 6,190,767.

In col. 6, lines 15-25 and 58-65, col. 12, line 59 and col. 13, lines 16-25 and 50-54, Ishikawa et al. teach the free radical initiated aqueous emulsion polymerization of a monomer mixture comprising long-chain alkyl (meth)acrylates and as little as 0.05% of crosslinking monomers in the presence of an emulsifier and an initiator such as t-butyl hydroperoxide, which reduces the amount of unpolymerized monomer, resulting in a

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polymer with weight-average molecular weights generally 100,000 g/mol and above, wherein the emulsion droplets are formed, at sizes as fine as 0.1 microns, with the use of high-shear mechanical emulsifiers.

In col. 14, lines 7-32, Ishikawa et al. teach the dispersion to be dehydrated or dried and form articles such as films when applied to substrate.

7. Claims 1-6 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Craun et al. (USPN 6,242,531)

In col. 4, lines 2-20 and 40-42, col. 5, lines 22-56 and col. 6, lines 1-3, Craun et al. teach the free radical initiated aqueous emulsion polymerization of a monomer mixture comprising long-chain alkyl (meth)acrylates and up to 5% of crosslinking monomers in the presence of an emulsifier and an initiator such as t-butyl hydroperoxide, resulting in a polymer with average molecular weights generally above 100,000 g/mol, wherein the emulsion droplets are formed, at sizes even less than one micron, with the use of high-shear mechanical emulsifiers.

In col. 6, lines 49-52 and col. 7, lines 32-35, Craun et al. teach the latex comprising the polymers to be applied on a substrate and air-dried to film-form.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. or Craun et al.

Although Ishikawa et al. or Craun et al., above, do not disclose a t-alkyl hydroperoxide with at least 5 carbon atoms, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to substitute any t-alkyl hydroperoxide with at least 5 carbon atoms for the t-alkyl hydroperoxide (t-butyl hydroperoxide) recited in the patents. Furthermore, applicant has failed to demonstrate the criticality of t-alkyl hydroperoxide with at least 5 carbon atoms in the embodiment of this invention

While applicant's examples do contain examples using a single t-alkyl hydroperoxide with at least 5 carbon atoms (i.e., t-amyl hydroperoxide), the examples are not commensurate in scope with the claim sufficient to render them non-obvious. Only one t-alkyl hydroperoxide with at least 5 carbon atoms is used and it is used only in combination with a compound such as isoascorbic acid. Further, the example with the combination of isoascorbic acid and t-butyl hydroperoxide showed improved reduction of residual monomer over the combination of t-alkyl hydroperoxide and isoascorbic acid in applicant's examples.

The applicant has not shown unexpected results from the use of t-alkyl hydroperoxide with at least 5 carbon atoms and the initiator, in order to reduce the amount of unpolymerized monomers, commensurate in scope with the claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (703) 306-5701. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

**KELECHI C. EGWIM PH.D.**  
**PRIMARY EXAMINER**



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